

**MONTGOMERY COUNTY GOVERNMENT  
ROCKVILLE, MARYLAND  
CLASS SPECIFICATION**

**Code No. 000553  
Grade 23**

**INFORMATION TECHNOLOGY SPECIALIST II**

**DEFINITION OF CLASS:**

This is developmental level professional information systems technology work. Contacts include other technology specialists, technicians, agency technology end users at all levels, vendors, and individuals outside the government to exchange information, offer technical advice, resolve problems, and coordinate projects or activities. The work involves providing limited service and assistance to the public.

The work of this class involves duties such as: writing computer programs/code; preparing test data and test programs; installing, customizing, and maintaining operating and network system hardware and software; troubleshooting and resolving computer operating system problems; assisting with the design and development of databases; performing systems analysis and system security functions; and developing system specification requirements. The work requires knowledge of specific applications, programming languages, systems, hardware or emerging technology applications. The work is performed independently, and is reviewed for technical soundness, appropriateness and conformity to policy. Guidelines for the work are normally available, but are not completely applicable to the work. An incumbent uses judgment and resourcefulness to modify, adapt or deviate from guides to accomplish the work.

The employee may recommend changes to guides as necessary. The complexity of the work is characterized by varied duties involving a wide range of systems design, installation, operation, maintenance and security issues and problems requiring the analysis and assessment of unusual or nonstandard matters, or data which is incomplete or contradictory. The work products affect the ongoing operations of a program, activity, agency or department. The work is primarily sedentary, primarily performed in an office environment, and involves no significant hazards to an employee. An incumbent uses a keyboard and video display terminal in the work; however, use of this equipment is not production-oriented. An employee in this class may occasionally be required to lift equipment weighing up to 50 pounds.

**EXAMPLES OF DUTIES: (Illustrative Only)**

- Serves as a troubleshooter in the day-to-day operation of a specific operating system at the department/agency level or below, and addresses daily operational issues identified by end users. Quickly identifies the problem, and takes the necessary corrective action.
- Oversees operating systems, including networks and database systems and their interfaces to other multi-disciplinary systems.
- Sets up and configures systems, equipment and software; develops and implements backup and recovery procedures considering user requirements and technical constraints.
- Develops complex spreadsheet, word processing, or desktop publishing applications.

- Writes new code to modify an existing operating system in order to satisfy the needs of a particular end user.
- Executes programs or utilities using job control language.
- Participates on a team in the development of new system requirements. This role can include conducting research on the capabilities of various systems including hardware, operating environment, user support, security, etc. Presents research findings and recommendations.
- Provides support to the development of specification requirements for technology procurements at the agency/department level or below. Provides input into the technical requirements based on the needs of the organization as well as determining capability/compatibility with existing technology operating environment.
- Designs, develops and maintains web-based and other applications used in support of government programs and activities.
- Writes system documentation in support of computer applications. Written documentation includes updates, ad new versions of software applications.
- Performs related duties as required.

### **CORE COMPETENCIES/ KNOWLEDGE, SKILLS AND ABILITIES:**

#### **Technical Competencies (An incumbent possesses competency in one or more of the technical areas below):**

- Competency in/knowledge of operating systems, including a basic understanding of desktop applications, database management, help desk operations and troubleshooting, user training/support, LAN support, departmental programs, server administration, network administration, system design, emergency control center, and mainframe operating systems and their applications in order to assure continual, uninterrupted operation of computer systems and equipment.
- Competency in/knowledge of programming languages and software packages such as JCL, SQL, Visual basic, Windows, word processing, and other database and data presentation packages to design, develop and support end users. Basic competency in/knowledge of program menus, project planning and evaluation, program development, systems application development, management reporting, web development/maintenance, software/hardware support, troubleshooting, program support, strategic planning, network management, training and emergency control center. Some positions in this class may require the knowledge of job control language and ROSCOE in order to initiate certain operational requests, standard reports and other applications associated with computer operations.
- Competency in/knowledge of information systems/network security methods, including plan network implementation, system security, training, mainframe use, network administration, systems analysis, emergency control center, and RFP development, for ensuring, protecting and resolving the security of information systems and network services.
- Competency in infrastructure design, including system integration, planning and evaluating, program development, systems applications development, troubleshooting, network management, internet/intranet, contractor management, LAN support, network security, user support, hardware/software support, systems analysis, systems design, voice systems, and RFP development.
- Competency in web technology, including database management, new systems solutions, web development/maintenance, internet/intranet, applications development, data warehousing, and eCommerce.
- Competency in systems integration, including program menus, application integration, plan network integration, new systems solutions, troubleshooting, strategic planning, contractor management,

system security, training, hardware/software support, project management, system design, and voice systems.

- Competency in database administration, including program menus, database management, disaster recovery, troubleshooting, data processing and analysis, data warehousing, and customer maintenance service.
- Competency in technology applications to conduct research and development activities to plan, implement and administer new technologies.

### **General Competencies**

- Knowledge of operating systems applied in the day-to-day resolution of malfunctions or systems performance.
- Knowledge of data access methods for mainframe, client server, Internet and Intranet to support an activity, program or agency.
- Knowledge of general computer architecture (CPU, memory allocation, peripheral devices, etc.) to provide support, troubleshoot problems and to answer questions.
- Knowledge of database security practices in order to monitor, control and evaluate user access, logons, permissions, etc.
- Knowledge of methods for ensuring, protecting and resolving problems involving the security of information systems and network services.
- Knowledge of the principles of database design to participate on and contribute to design teams.
- Knowledge of hardware components of a telecommunications network, client/server and mainframe environment, personal computers, and data warehousing concepts to provide advice, assistance and to troubleshoot problems.
- Knowledge of computer graphics and design in the support of web-based applications.
- Knowledge of the principles, methods, and tools for automating, developing, implementing and administering database management systems.
- Knowledge of principles, methods, and procedures for optimizing, integrating and installing information systems components.
- Knowledge of the principles and methods of web technologies, tools and delivery systems.
- Knowledge of the architecture and typology of software, hardware and networks including LANs, WANs and telecommunications systems, their components and associated protocols and standards.
- Knowledge of computer network, desktop, mainframe operating systems and their applications.
- Knowledge of computer languages and their applications.
- Some knowledge of procurement and contractual documents to develop, prepare and evaluate requests.
- Basic knowledge of client server architectures.
- Basic knowledge of data models and structures (such as arrays, stacks, queues, linked lists, and trees), file organization and data modeling techniques to provide updates, report requests; and ability to modify existing systems and develop new systems.
- Skill in project management concepts in order to design, develop and implement small projects.
- Skill in developing workflow diagrams in support of system analysis activities and functions.
- Ability to define organizational data requirements in support of technology applications.
- Ability to work with clients and customers with courtesy and tact to satisfy their expectations.
- Ability to communicate effectively, both orally and in writing.
- Ability to apply analysis and programming logic to solve basic technology problems.
- Ability to organize work, set priorities, and determine resource requirements.

- Ability to identify problems; use creative thinking and sound judgment to generate and evaluate alternatives; make sound, well-informed, creative and objective decisions; perceive the impact and implications of decisions; and commit to action, even in uncertain situations, in order to accomplish organizational goals.
- Ability to quickly adapt to change.
- Ability to cooperatively work as a member of a team.
- Ability to plan work, set well-defined and realistic goals, evaluate and monitor progress, and effectively manage time.
- Ability to attend meetings or perform other assignments at locations outside of the office, if necessary.

#### **MINIMUM QUALIFICATIONS:**

**Experience:** Two (2) years of professional experience in the information technology field in such areas as programming, systems analysis, and data/telecommunications, depending on the duties of the position.

**Education:** Bachelor's degree in computer science or a related field from an accredited college or university, or certifications in specific programming languages or operating systems may be required, depending on the duties of the position. Programming languages might include Visual C++, Visual J++, C++, C, SQL, PowerBuilder, Oracle Developer 2000, and COBOL.

**Equivalency:** An equivalent combination of education and experience may be substituted. For applicants possessing very hard-to-find skills which are a critical need to the department/agency, training and certification may be accepted in lieu of full degree requirements.

**Physical Ability:** Ability to lift boxes containing computer support items and equipment such as printers, computers, modems, and monitors weighing up to 50 pounds.

**LICENSE:** None.

#### **PROBATIONARY PERIOD:**

Individuals appointed to a position in this class will be required to serve a probationary period of twelve (12) months and, if promoted to a position in this class, will be required to serve a probationary period of six (6) months. Performance will be carefully evaluated during the probationary period.

Continuation in this class will be contingent upon successful completion of the probationary period.

**MEDICAL EXAM PROTOCOL:** Core Exam.

**Class Established:** July, 2001

**Revised:** October, 2011

August, 2013

September, 2014